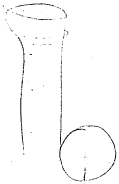
Fort Myers Notebook, N-86-04-03.1

This notebook covers the period April 1886. All of the entries are by Edison. Many of them concern the direct conversion of heat into electricity, magentic fields, and lines of force of the sun, earth, and other planets in the solar system. Other notes and drawings deal with the coating of carbon filaments, armature design, carbons for arc lights, multiplex and phonoplex telegraphs, a battery for the grasshopper telegraph, telephones, a cotton picker, a larynxial piano, and a hearing aid. Many of these entries are duplicated in Fort Myers Notebook N-86-04-03.3. The spine is labeled "27." The book contains 284 numbered pages.

Blank pages not filmed: 226-255, 264-267, 274-275.

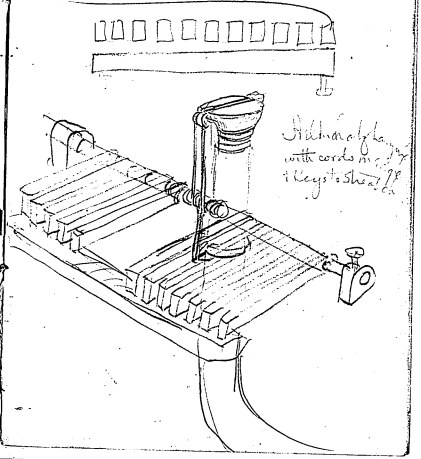
XE-172 N-86.04.03.1



N-2004
ARTHUR K. DONNELL
MANUFACTURER
55 CEDAR STREET
New York

April 3 1886 Tait

Laryngeal Piano



April 3 1886 TAE

Further Qtatative determination for
Compressed Carbon, mix ~~with~~ ammonium
Caustic K to cause it melt partially
at highest temperature to
hold Silica Oxide [illegible]

Lamp black —

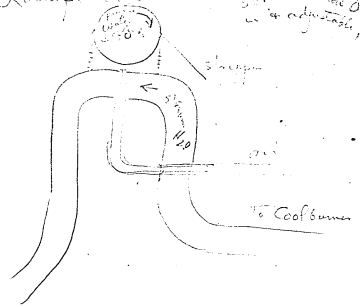
drop on hot plate (red hot through)
Petroleum, Crude - & Kerosene
Cylinder oil

With natural gas - distance outside O
but mix smallest quantity with
gas that will give sufficient heat for decomp.

KO. 1.0 0.0

April 3 1886 709

Lamp Feed



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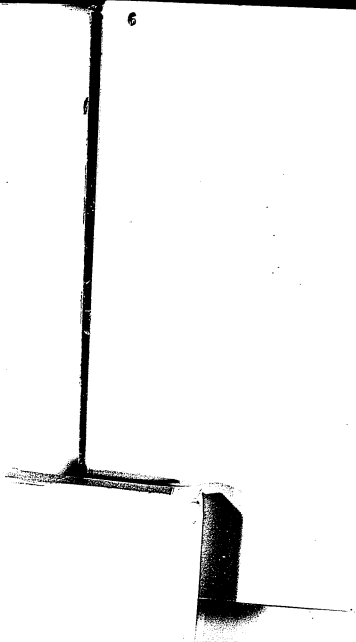
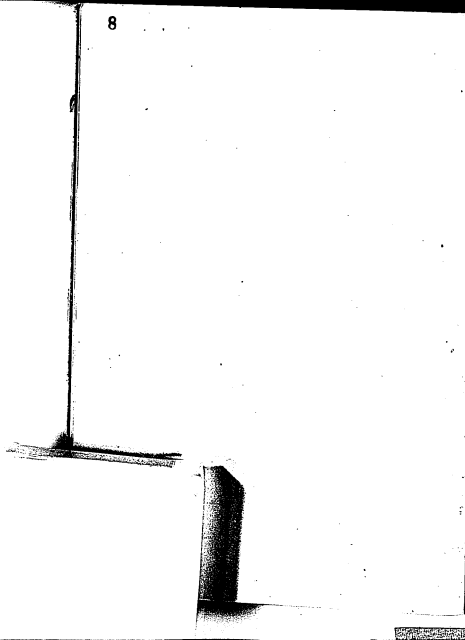
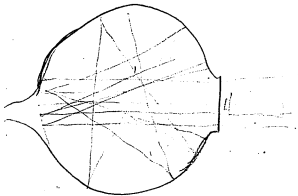




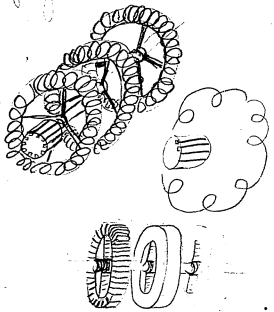
April 4 1886 TCE-

I propose to rotate the cotton picker spindles by a blast of air - acting on a wheel like pleasure mill blower, the direction being reversable as the spindle goes up or down towards the plant



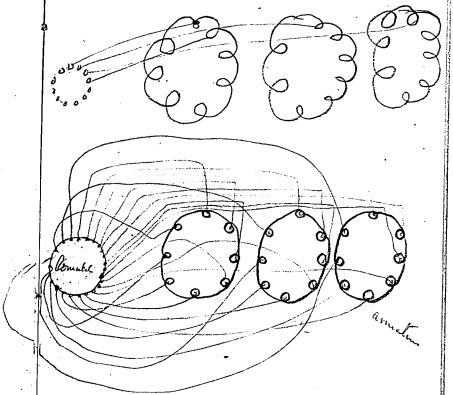
April 4 1886 TAE

Nonspkg mulch, cc Ormalin

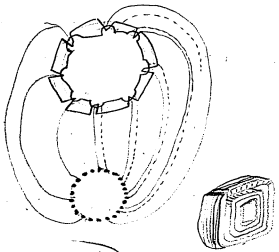


April 4 / 886 TAE

Multiple Gramme Armatures
non-spiky armature —

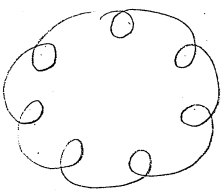


April 4 1886 TAE



3 Sets gramme wound armature coils in one armature.

Non-spkg



Ht April 4 1886 TAE

Triple gramme armatures on one shaft with one field but

with one Commutator. The 3 coils in line on the 3 armature Connected to 1 2 & 3rd stamp on Commutator as in my non-sp/eq non-local coil shortstatic Siemens winding - See p 13-

Put this —

April 4 1906 TAE -

On the filament of Carbon coated with Silica etc The thickened ends can be freed from the coating by immersing in an acid Hydrofluoric, Sulphuric etc, but this need not be originally Coated if each are done by hand seperately.

The increase in the number of candles per hp with a white incandescing surface will probably be 10 @ 15 per cent,

Make a $\frac{1}{10}$ M/f Cardeum paraffin in form cylinder 1 Enclose in Vacuum - also one Exactly same Capacity outside + seal without if Wax increases Sharpness or Cap of Carbonised

April 5th 1886 Tar

Carbonize less dense material such as paper, wood-(pine willow etc) Licorice mixed with MgO by auto pulmonary to get high resistance then if stands well Compound with MgO Surface —

Ethrink with perfect Carbon

The lighter materials will answer fully as well as bamboo or Excedingly high resistance,

Try parchmentized paper.

While Holly -

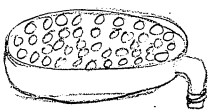
Lampblack + licorice MgO
" Tar MgO
Licorice MgO
punch out & rolled sheets of this material —

April 5th - 1886 T&E

Mixtures for filaments which are soft can probably be rolled down between tin foil several layers of platinum & foil one over the other & rolled together thus obtained two; Several might be clamped at once clamped by platinum loops & Carbonized together. The foil melting or dissolved out with acid - Thus making it easy to handle filaments

April 5 1886 7a?

Carbonize



April 5 1886 7a?

With Auto prelum - Soak original filament with ~~Tar~~ Licorice, prelum + Carbz reg - then Soak Licorice + prelum + resoak two or 3 times then Carbonize regular This has never been properly tried.

April 6th 1886

Tar -

Arc Light Carbons - before baking make sheets of pottery mixtures and roll outside covering on Carbon - make mixtures so as ~~to~~ Contractions will be the same, put them very thin, perhaps 2 or 3 records of thin tar. Coats best,

Aluminum - Magnesia, clays etc.

Grasshopper battery - make the area of the cells as small as possible so as to prevent slow discharge by wires - ~~o~~ Iridosmine points so there is no free metal points to follow - prevent miscellaneous discharge

April 6 1886 TAE

Lamp

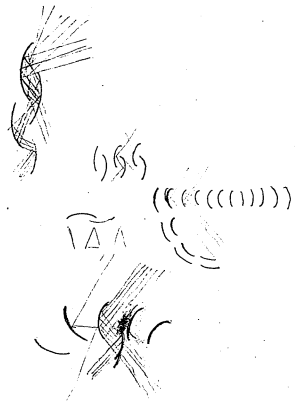
Make a mouse mill like Thompsons recorder or perhaps the Gas lighter Mouse mill run by motor will answer. use this in static Experiments on Lamps for counter charges—

Speaking tube - Try greatest distance with inch gas pipe elephagon on ends and 35 lbs to a square in pressure inside you can speak — Try lead pipe instead ¼ inch inside bore —

Try at different pressures if increasing pressure causes greater dissolution

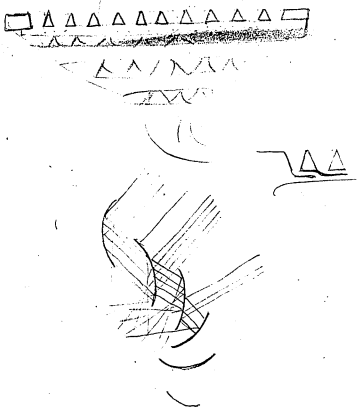
Carry pressure up to 100 lbs or more to a square inch Try glass tubing but on & sealing wax round on joint,

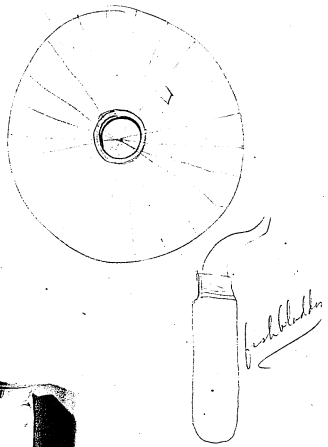
Tube



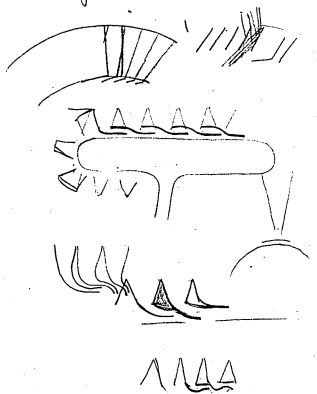
April 6 1886 10 8 -

Deaf -

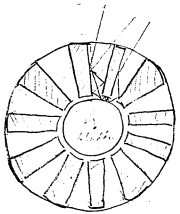


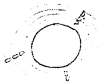


April 6 1886 T.A.E.
Draf

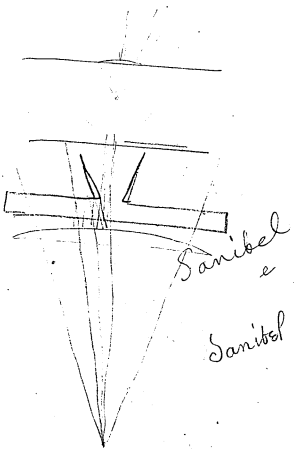


Apollo 8 & 10



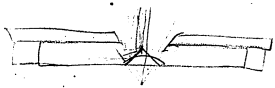


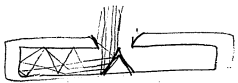
30 mesh Sieve around fish bladder with Compressed air + Ear piece.

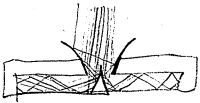


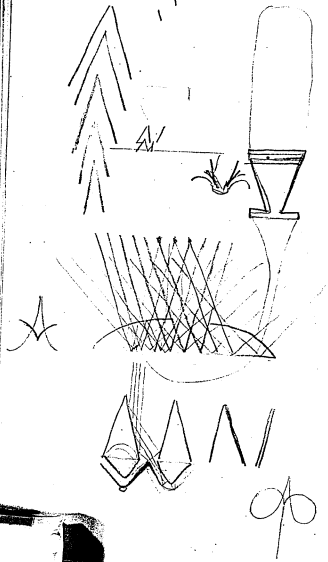
Aprile 1886 - 1ac

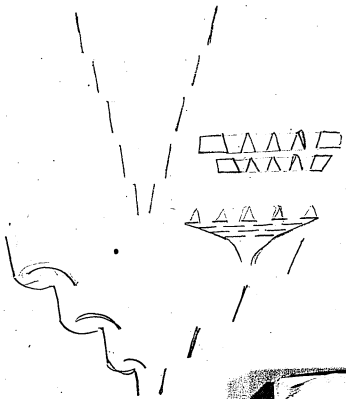
Telephone —



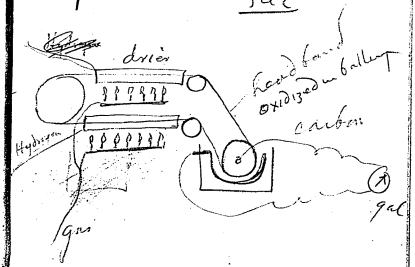






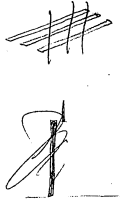


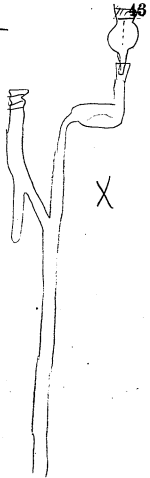
April 6 1886 JAE



Conversion of heat into E by oxdtn & reduction of O of band on Continuously moving band of lead, passing into hydrogen Close to Carbon in proper hydrogen Lead is Oxdized - thence through drier, tube thence through Hydrogen reduction tube to Carbon again &c on Continuously

April 6 1886 TAE



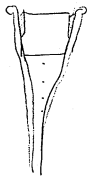


Experiments to get a porous material whose pores will let O through but not N

April 6 1886 TAE

Use plaster paris - dry clay
Cork - Lime - natural - moulded oxide
Meerschum - pressed phosphates
Chalk every deg pressure, etc,
Cocoanut charcoal -
dy charcoal -

Hg

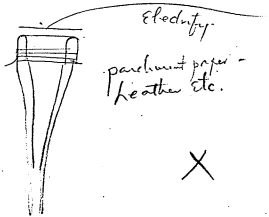


Leather
Bladder
Alligator leather.
parchment paper

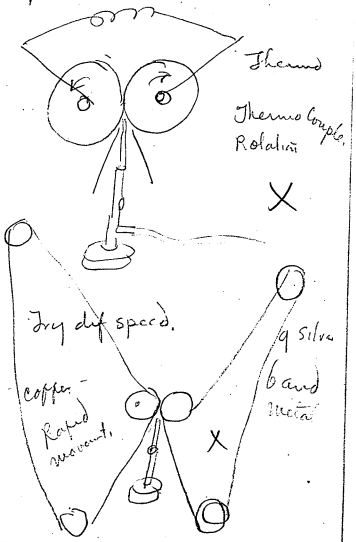
Hg

Electrify the
surface of the
porous intestine.

April 6 1886.



april 6 1886


Thermo
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q Silver
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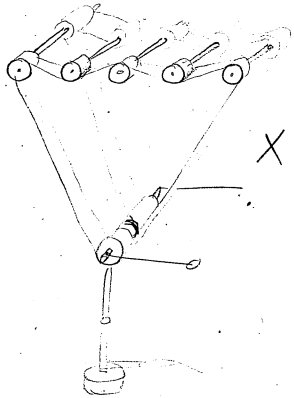
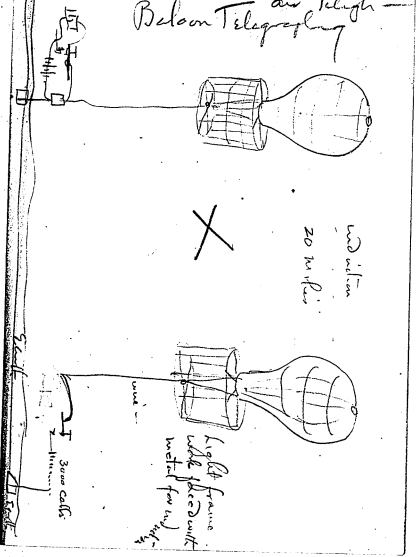
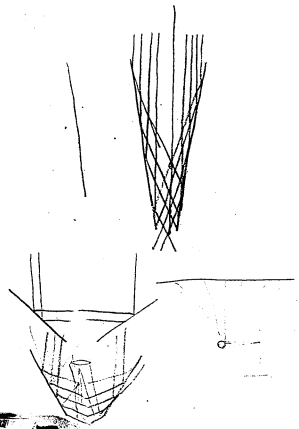
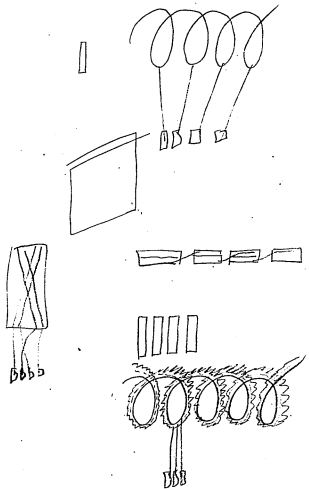


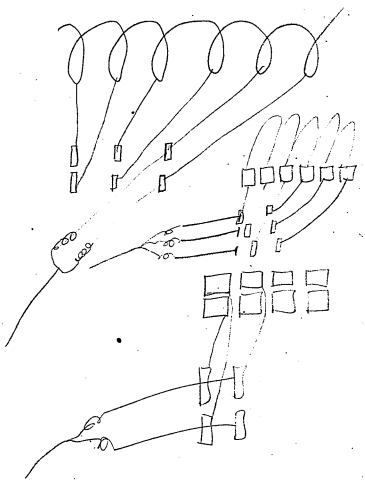
April 6 1866 T.A.E

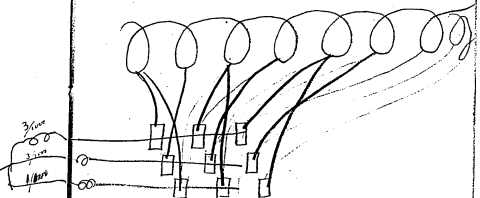
Balloon Telegraphy











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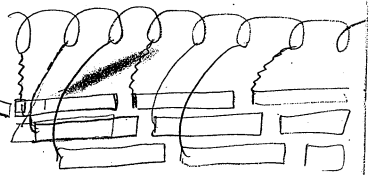

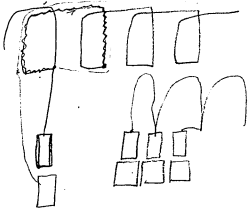

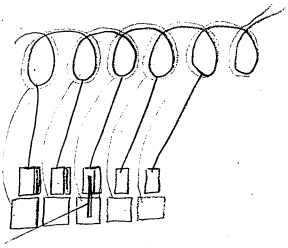

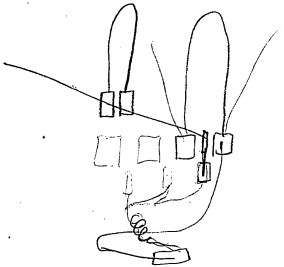

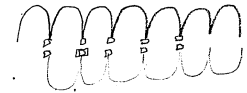

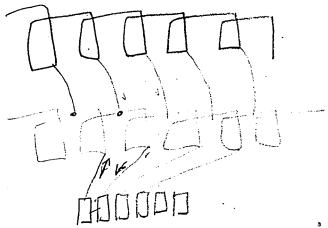

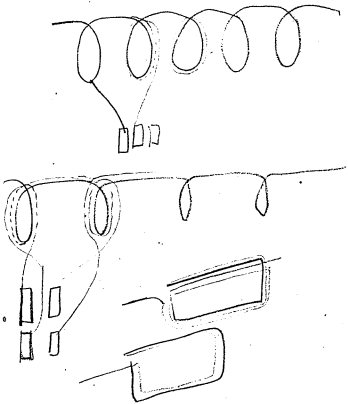

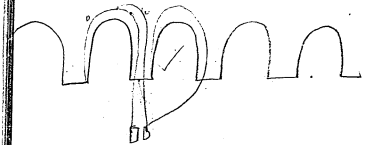

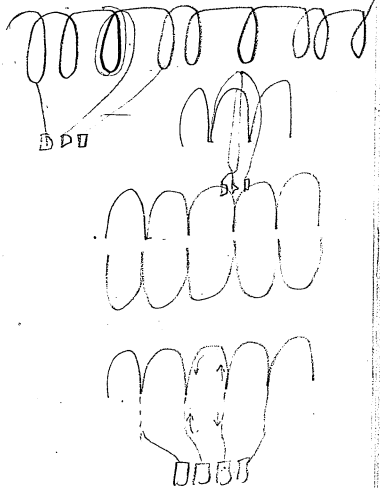

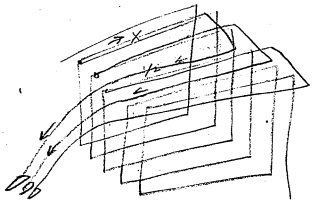

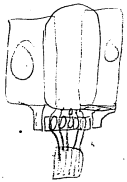

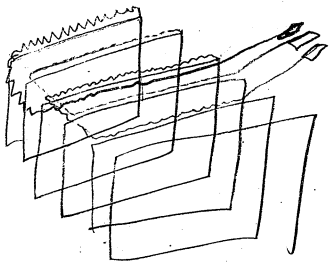

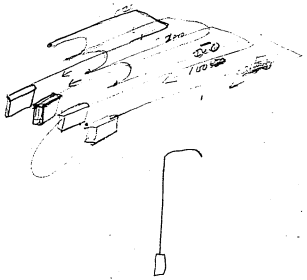
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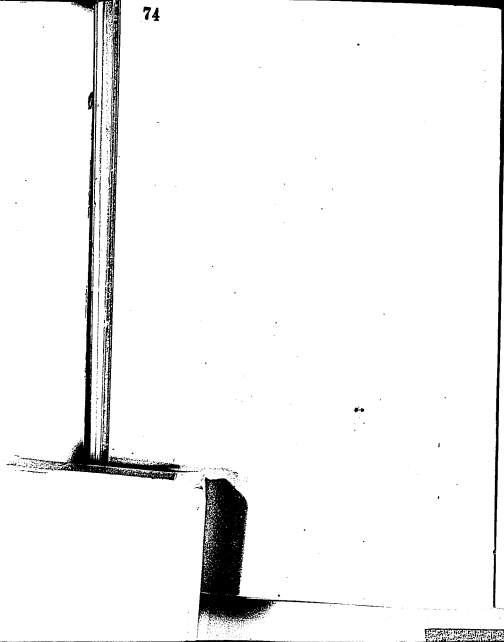

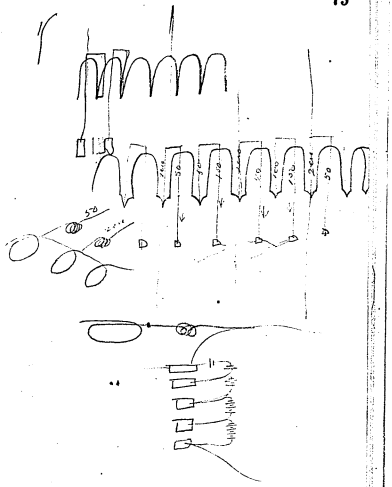

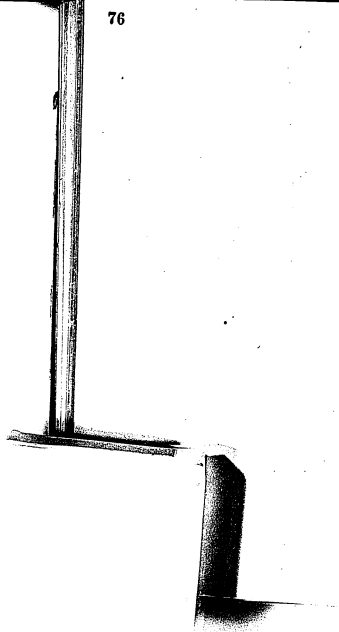

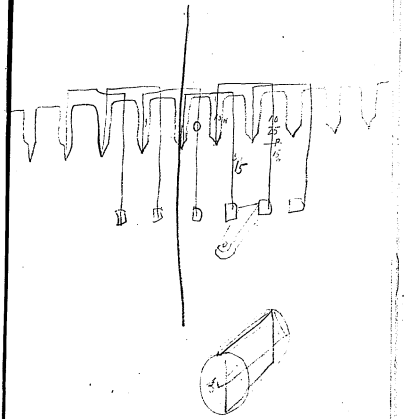

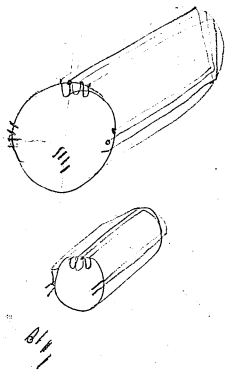

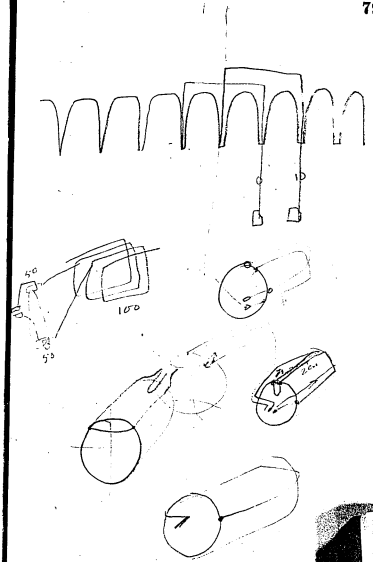
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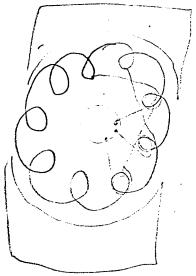

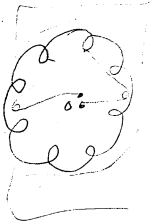

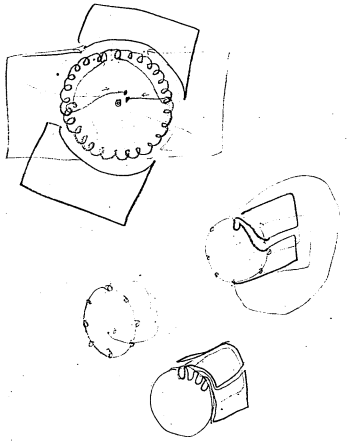

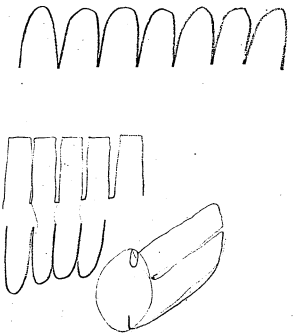

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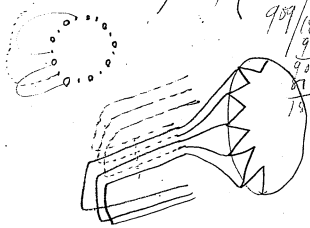

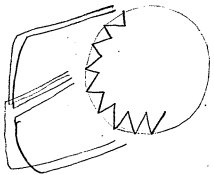

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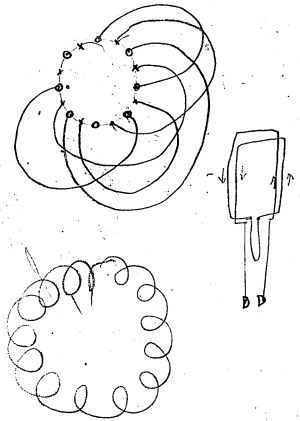

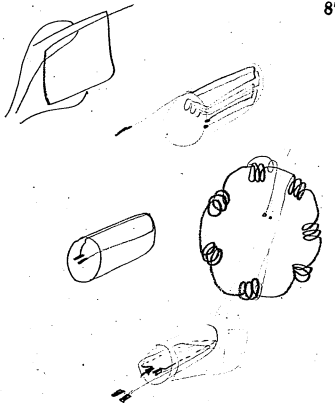

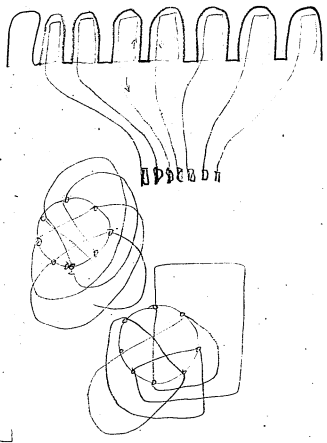

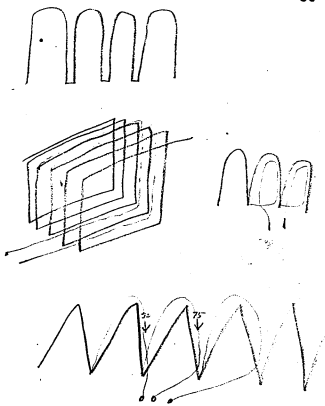

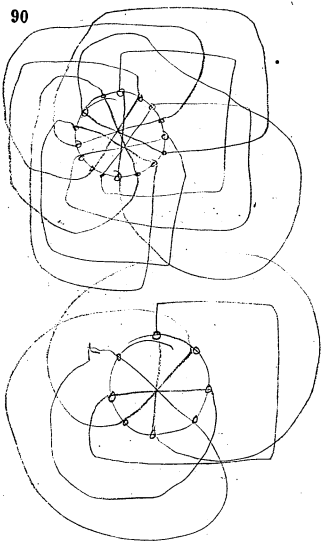

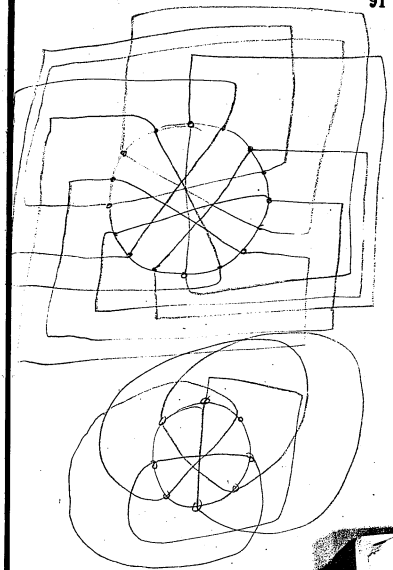

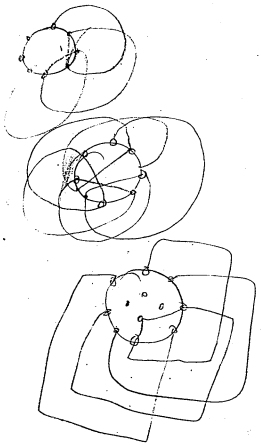

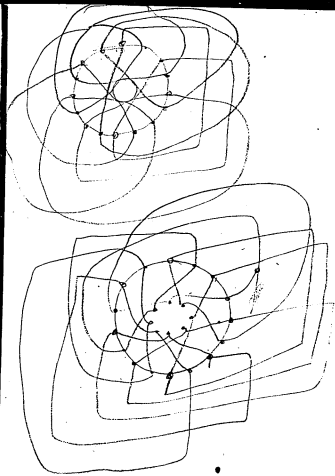

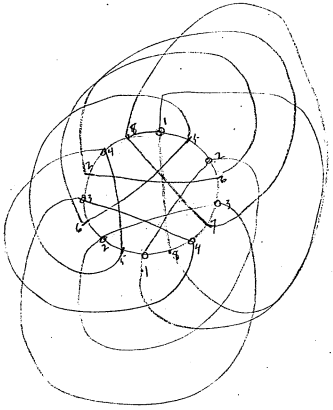

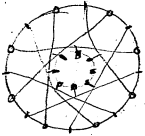

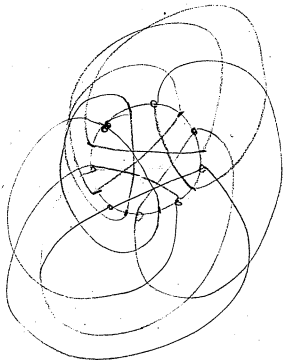

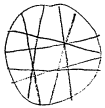

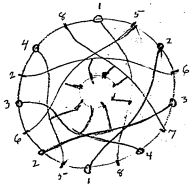

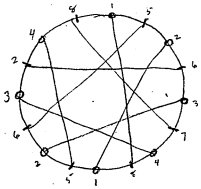

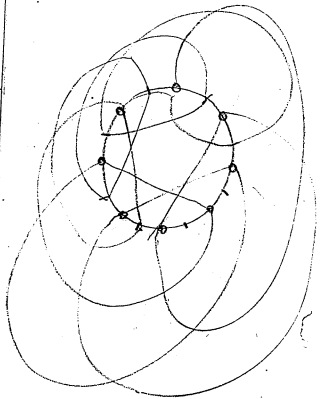

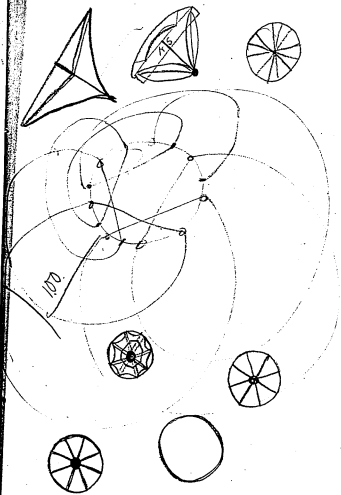
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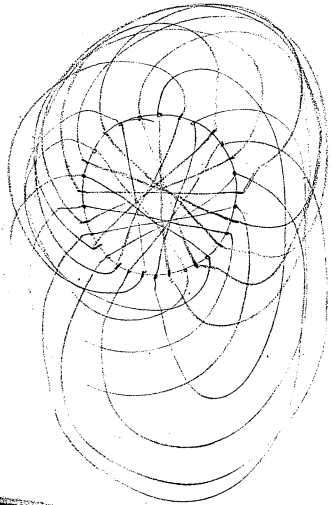

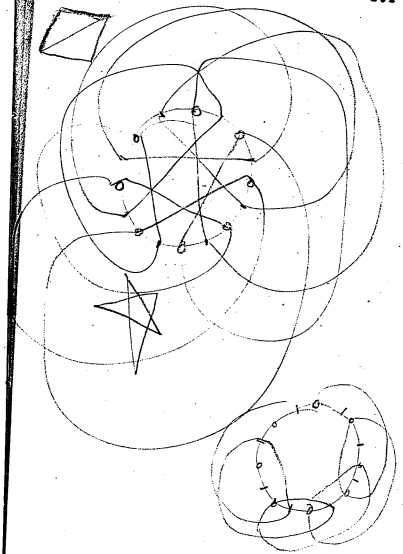

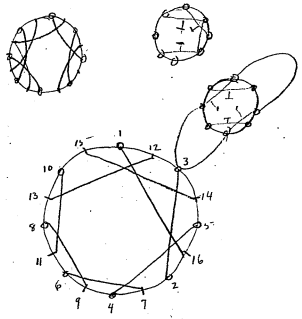

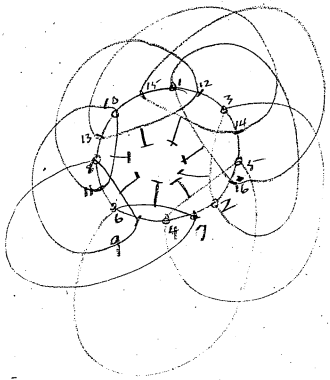

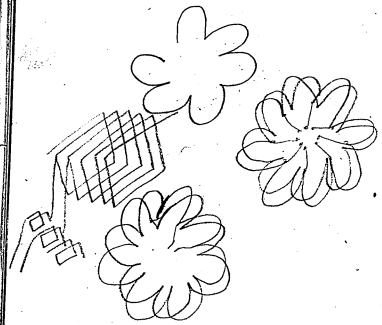

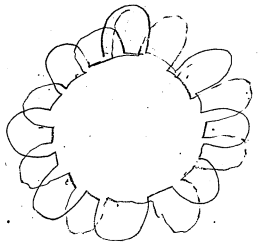

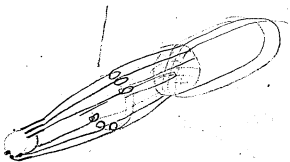

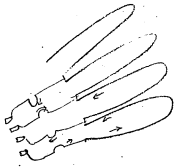

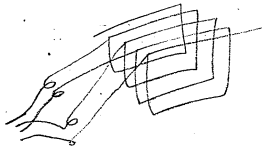

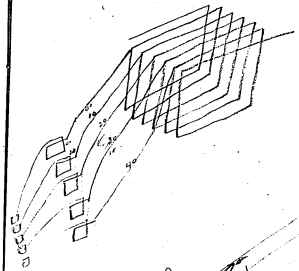

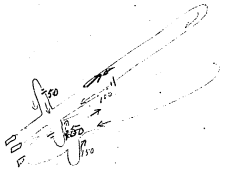

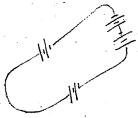

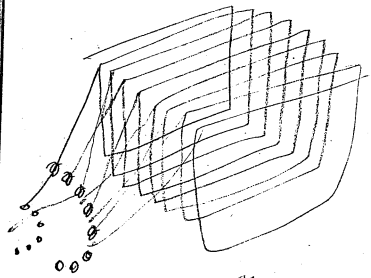

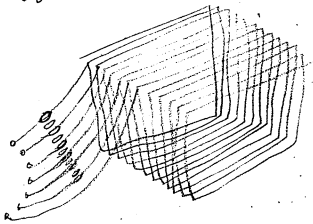

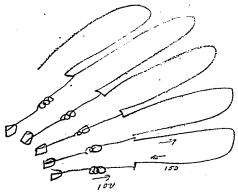

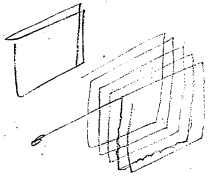

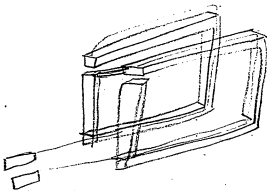

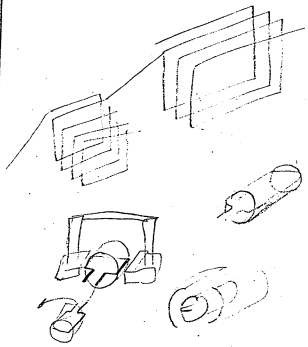

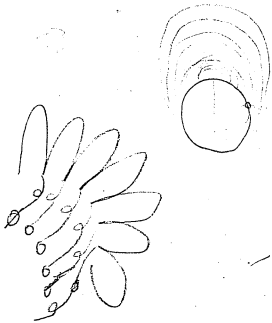

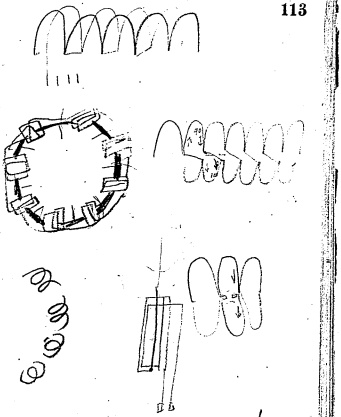
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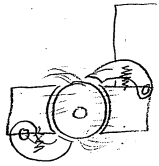

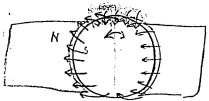
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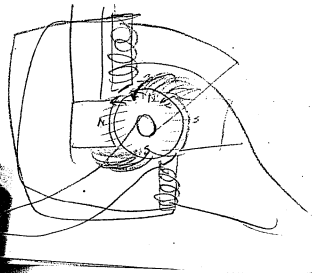

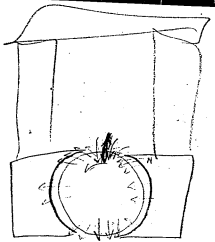
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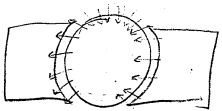
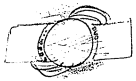
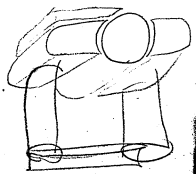


revelations were made Today
Concerning the mysterious
disappearance of Grace Whitcomb
postmaster Gen[illegible] Vilas's
niece from her home in Jackson
Mich - The family have
from the first asserted,



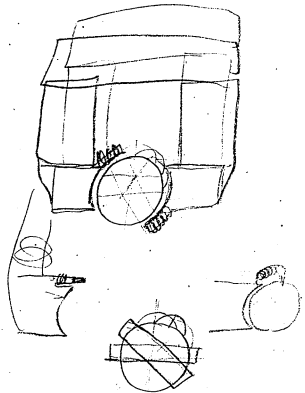
That it was unlikely that she had
left Jackson but this evening
it was learned that Grace
took from home

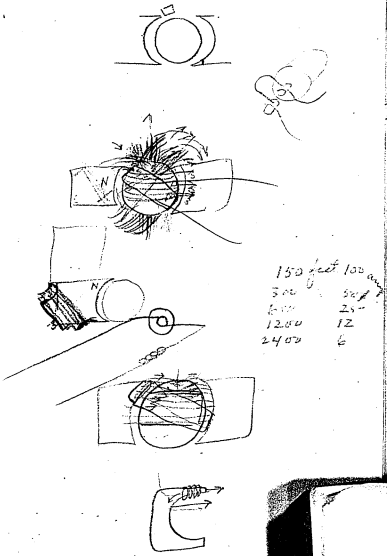


Mr John Gould of this city has at the request of a number of business firms drawn up a petition to the legislature asking for the amendment of the present assignment laws with a view to prohibiting preferences.

The suit of Robahode and dom st cc gainst rch o not s mun er

Why was the case so suddenly dropped after the long drawn out rock litigation

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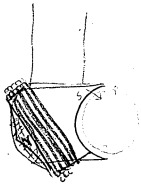
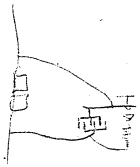


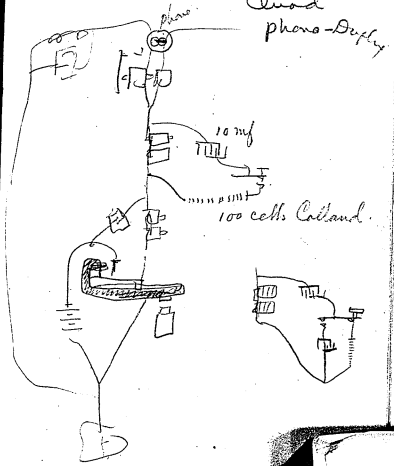
Chicago. William Westley negro minstrel appeared in judges shepherds house to day and proceeded to tell all about his troubles with his wife Fay Templeton. From whom he sought a divorce. I married my wife said he in Nashville May tenth miss Templeton was then a drama atic artist but before I would consent to marry her I exacted the promise that she leave the stage. We lived in Nashville one week when my mother & company came back north and my wife rejoined me in New York about June fifteenth and renounced her position in her fathers company

When I reached chicago we put up at the Tremont House. We had been here about two weeks when one evening, Miss West started me by saying, well Billy I think I shall go back to New York. I asked her what the trouble was. Oh, said she, I dont think I can stay away from the stage Married life is all well enough for a little while but you soon get tired of it. Well, said I, if you feel that way go and God bless you. She went back to New York and resumed the stage. She is now playing in Rice's Evangeline company

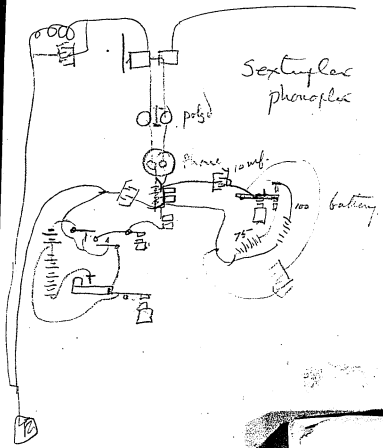


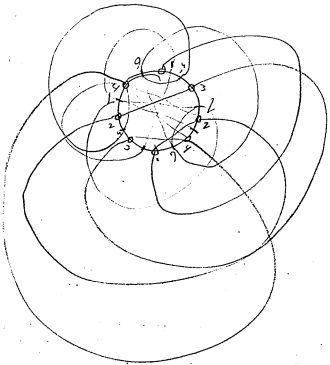
April 8 1886 Tar

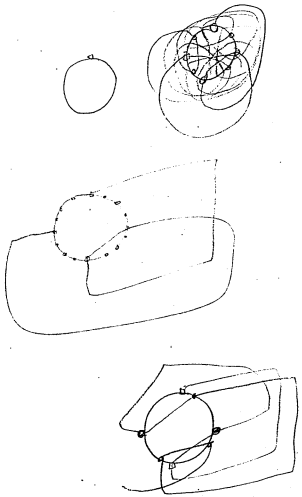
Quad phono-Duplex

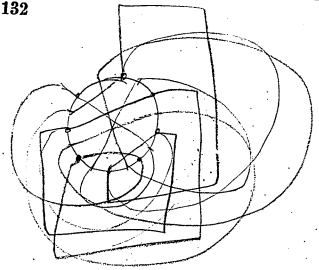


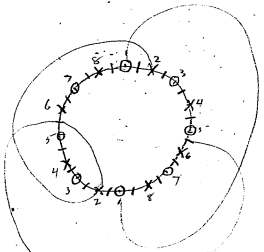
April 8 1886 VAE

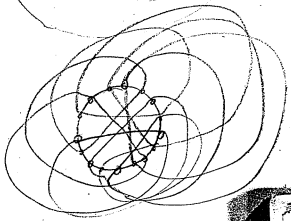


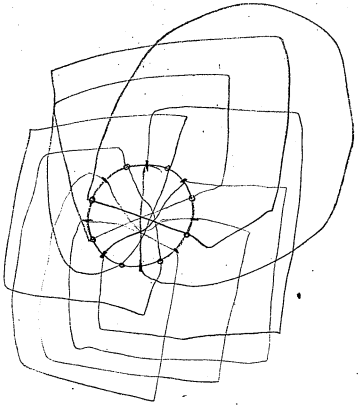


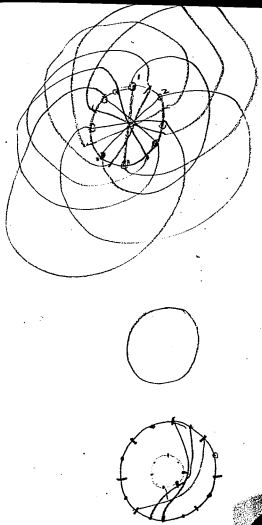


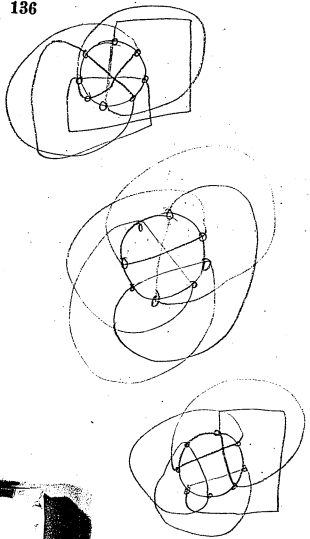


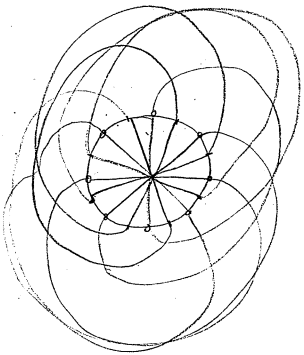


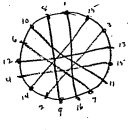


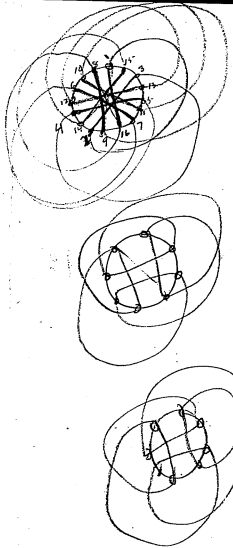












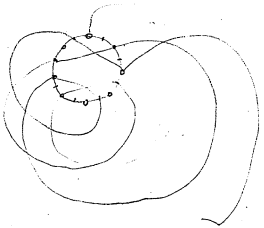
Washington D.C.

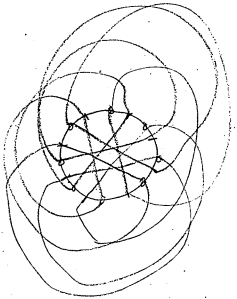
In the senate today Mr. Logan submitted the following resolution and asked that it might be printed and lie over. Saying that he would call it up on some future day and submit some remarks. Resolved that the senate sessions commonly known as executive sessions so far as they apply to nominations confirmations or rejections shall hereafter be held with open doors and the public record of the same be kept the same as of legislative sessions. Mr. Ingalls offered a resolution

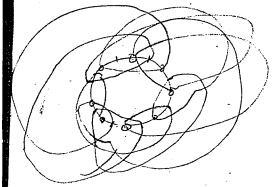
Calling on the postmaster general to inform the senate as to whether he had received a resolution of the senate passed on march fourth which & as to the number of fourth class postmasters removed since the march fourth and if the resolution had been received & why it had not been answered and when an response might be expected. Mr. Ingalls said that eighteen days had elapsed since the adoption of the resolution and as it merely called for the number of such postmasters and did

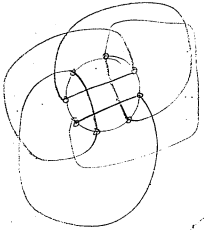
not call forth names
of or other particulars
of detail. It merely re
quired a computation
from the official registers which he thought
might be done in the two
or three days all the senate
st. He had no desire
to assume that there was
any disinclination on
the part of the postmaster
general to comply with
the resolution but as
the information was
necessary in some
remarks that Mr. Ingalls
hoped to be able to sub
mit to the senate on the
resolutions reported from
the judiciary com

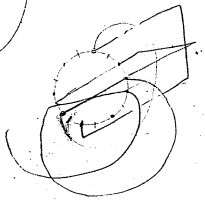
mittee and he said saw
no reason for the delay
she had offered the re
solution.

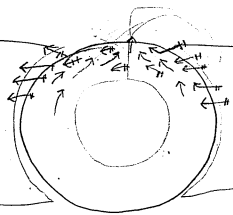


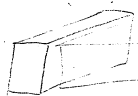


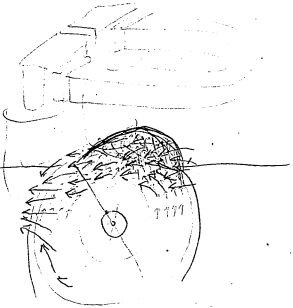


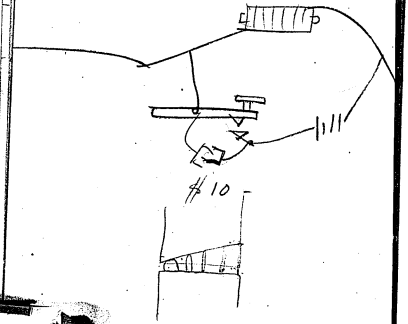








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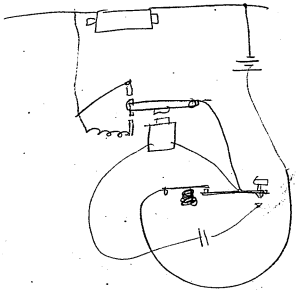

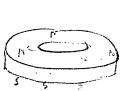

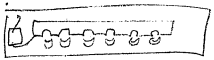

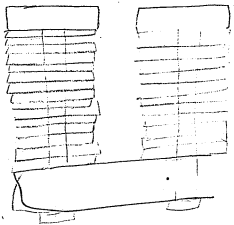

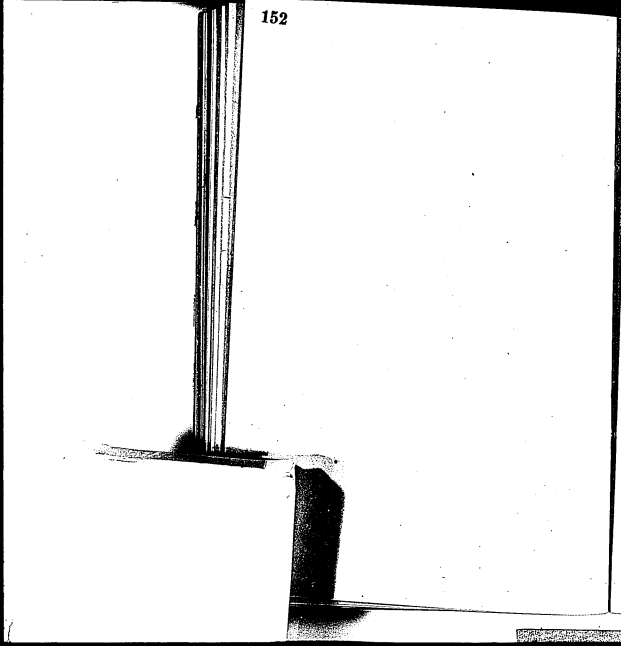

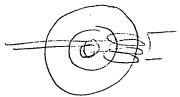

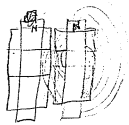

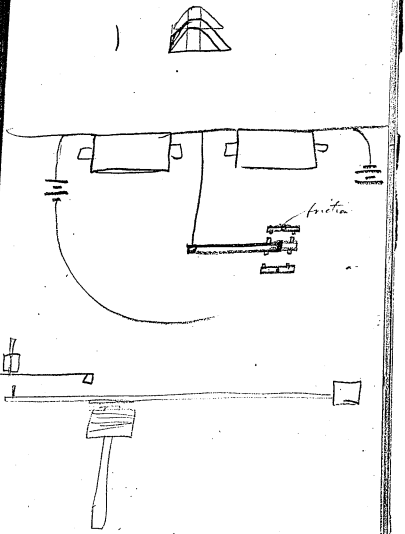
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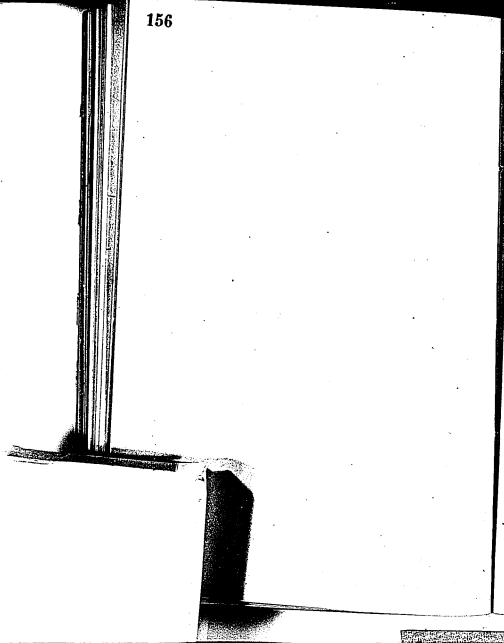
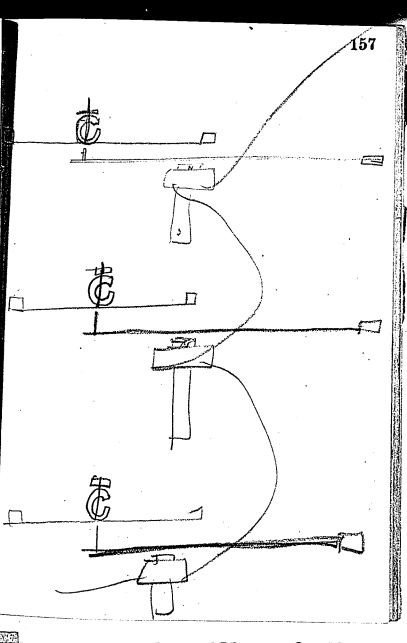
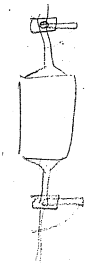
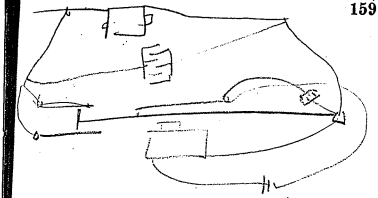
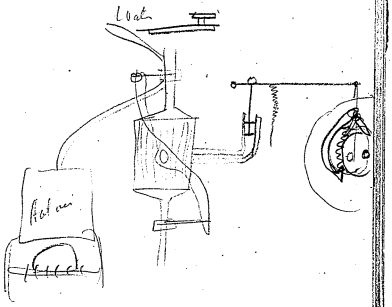
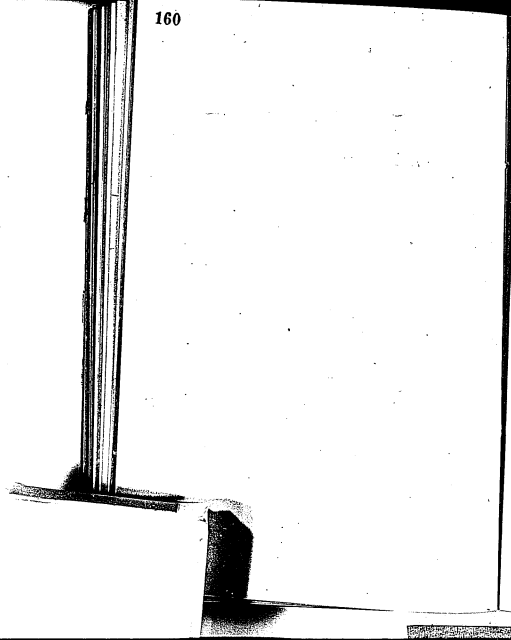


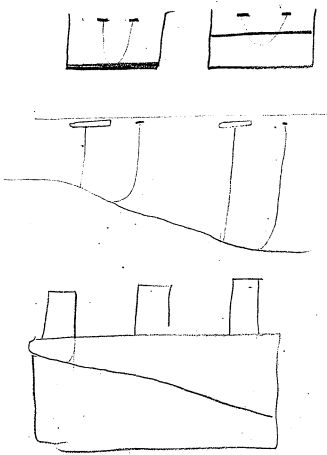







Coat
Helmet





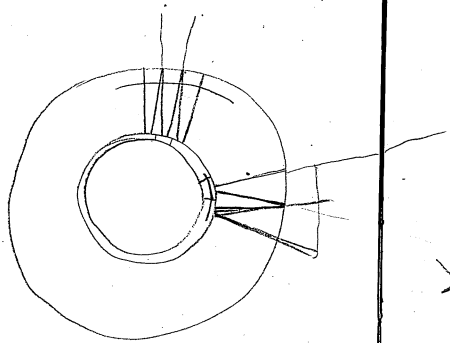
Little Phyllis a girl of five years very erratic in her praying in a particularly obstreperous manner the other evening. Nothing could induce her to call down and be a good girl finally her mother said Now Phyllis I think there is nothing that will make you good except to say your prayers. I want you to come with me into the library and kneel & down and say your prayers and then I am sure you will be a better girl. She allowed herself to be led into the room

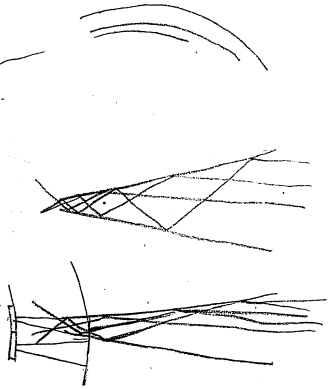
and sincerely enough knelt calmly down and said her prayer with ~~sweetness~~ unction and humility closing it thus as usual. Dear Lord, please bless my papa and ~~[illegible]~~ my mamma & bless me and make me a good girl, amen.

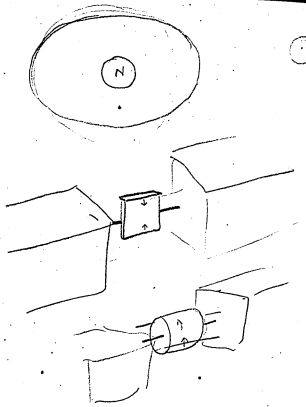
~~Come~~ and then jumping up & and & lamping her poor mother kindly. Where mamma you got left that time.

The Khedive shook hands and seated me on one side of the angle made by the corner while he occupied a chair directly in front of me. This placed the light from the wind-ow fell upon him and I had an opportunity of studying the man who since he came into power has from the force of circumstances been almost as fully in the blaze of notoriety as any crowned monarch. I have already said that he was neatly dressed. His linen was of remarkable whiteness suggesting that the supture of the

control had not prevented the retention of a French laundress. It may be a royal peculiarity to have clean linen but in this case the whiteness was exceptionally. The Khedive had narrowly escaped being hands on His hair is dark, his nose straight and not large



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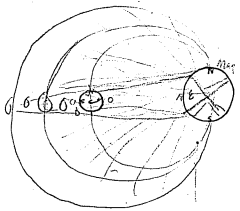

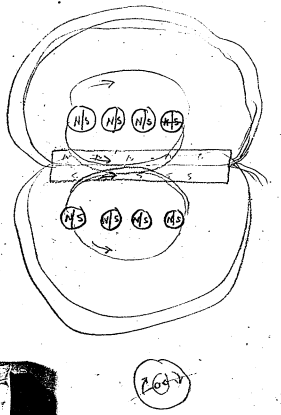

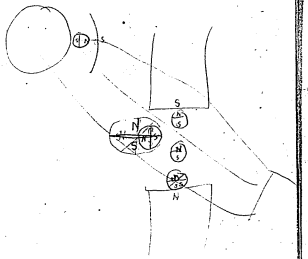

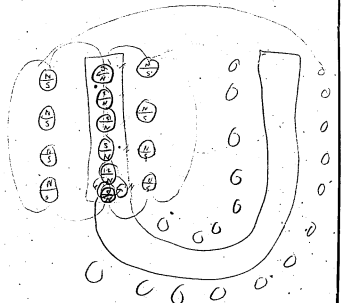

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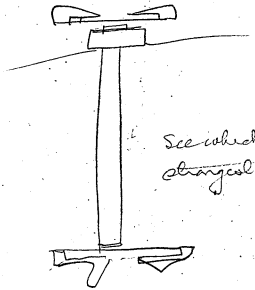
Telephone receiver



April 18 1886 TAE

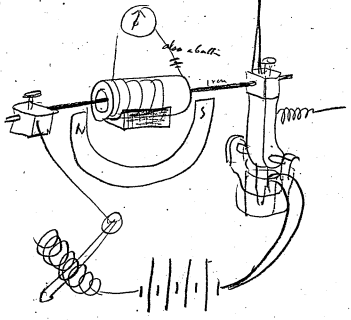
X42

If Iron loses its peculiar property of magnetization at a red heat probably non magnetic metals may gain the property, hence try all with Core & armature at all temperatures up to bright red —

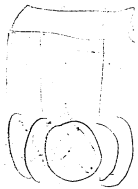
good

Iron at a point about dull red say 900 for loses its magnetism hence by manipulating the temperature causing a slight rise & fall it will magnetize & demagnetize a feeble magnet and thus by winding an extra low resistance Coil can be thrown in Current Commutated thus getting heat into Electricity

April 9 1886 –



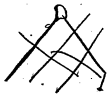
Experiment to bring iron up to 900 (F) the Critical point where it loses its magnetism + see if can get induced Currents.

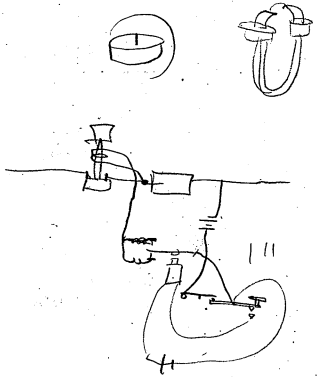


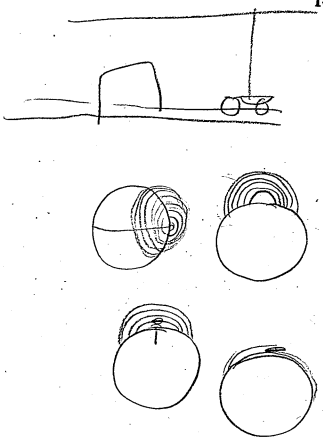
April 19 1886–

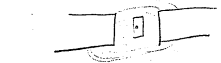
If Iron looses its magnetism slowly up to 900 fahr. then a change in heat of a magnet ought to throw induced Currents in a coil

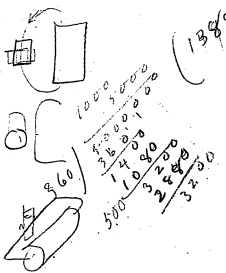
Therefor hot + Cold water oscillated through magnet composed of two tubes one within the other ought to be a way of getting heat into Electricity







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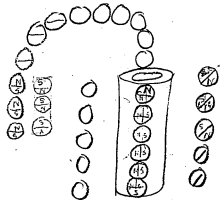
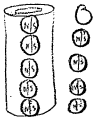
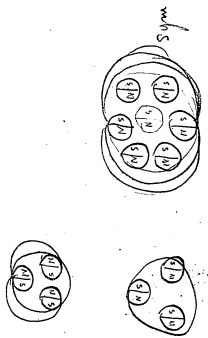
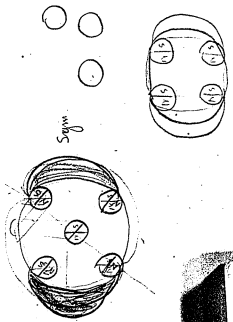
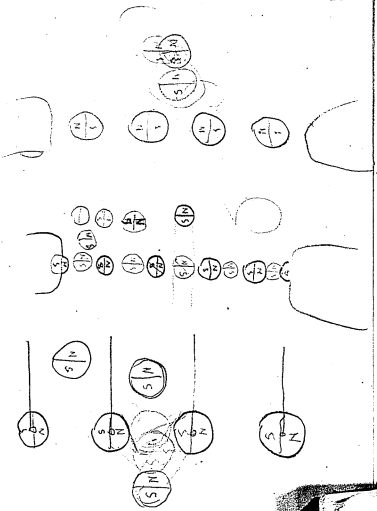


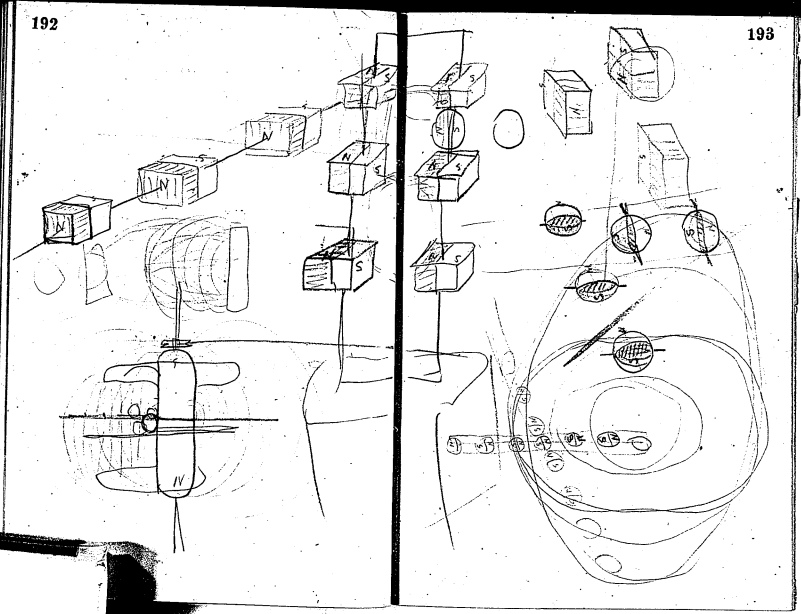




April 22 1



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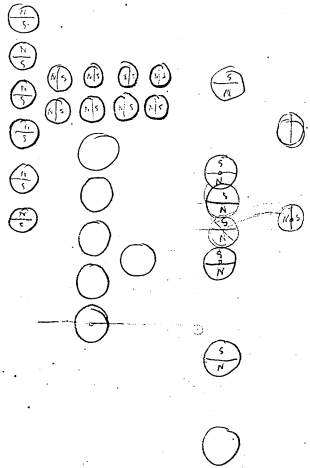
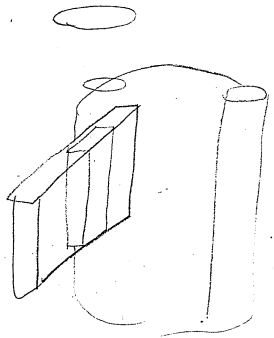
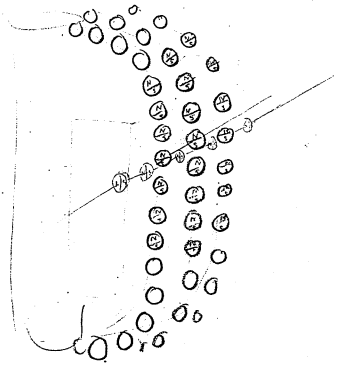
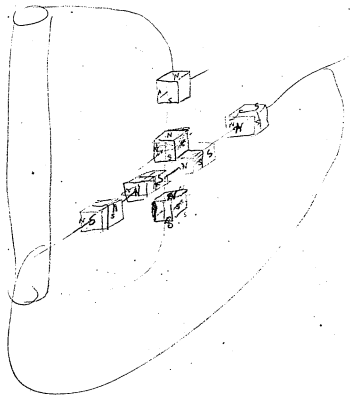


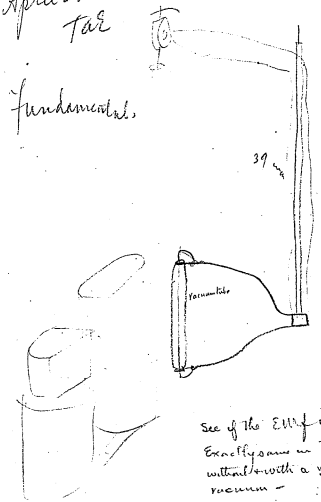






April 23 1886
Tait

Fundamental.

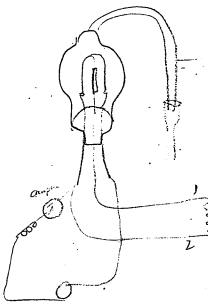


See if the E.M.f. is
Exactly same in tube
with mid & with a very high
vacuum —

April 23 1886

Tag

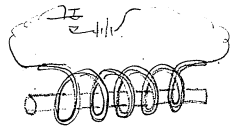
fundamental



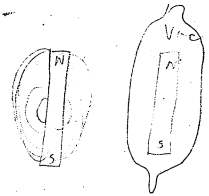
April 23 / 1886

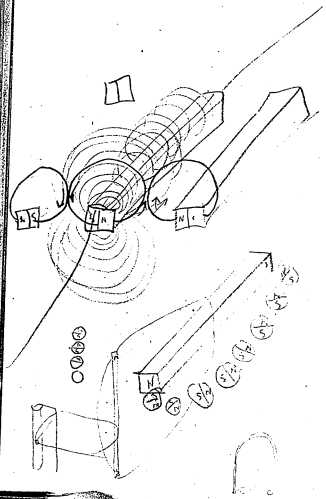
also keep Cp same. 20 ft
during all exhaustions
from Curves with
X open + closed -
also by shp gases
by a platinum Loop
+ Centre platinum wire
also - Iron Loop +
Centre platinum wire
Use a regular lamp +
make two centers wire
+ exactly alike in length +
size + platinum - when one
plate are 2 mo. sec of deference

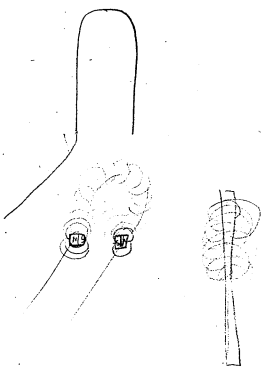
April 23 1886 TAE



glass tube with wire in
10 or fifteen turns, Vacuum
in tube, see coiled is
charged with or without
Vacuum -





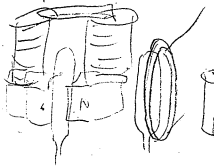


L of F seems to be Lines of Force GHS 3/22/64

? McL 9 could be reading on McLeod Gauge GHS 3/22/64

April 23 1886

Fundamental

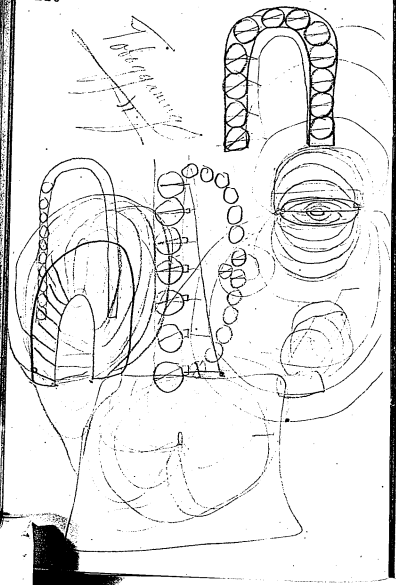


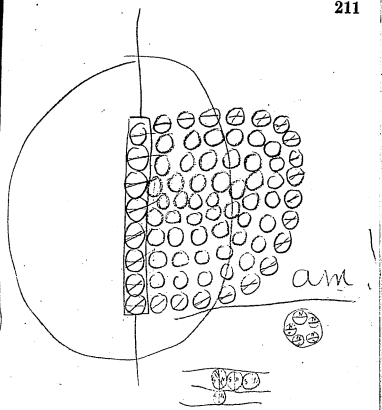
Ascertain of with a given Vacuum manipulating half $\frac{1}{2}$ increase or diminish pressure —

pump full Cock

Viscosity of residual gas

McL 9

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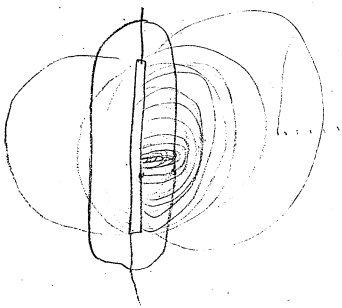
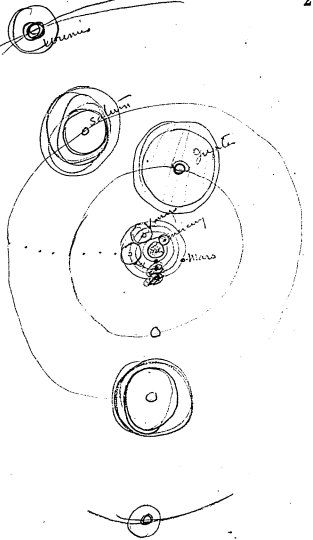




983.000

7896.

1000

950,000

1	1
2	16
4	64
8	256
16	1024

16	2
32	4
64	8
98	16
512	64
	1024

983,000

365 1075.9 (29

730

345.9

32.85

20.9

1650 | 6000,1

20

365 100 m,

Saturn [illegible] times [illegible]

87 times more mass

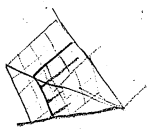
29 times larger in equatorial

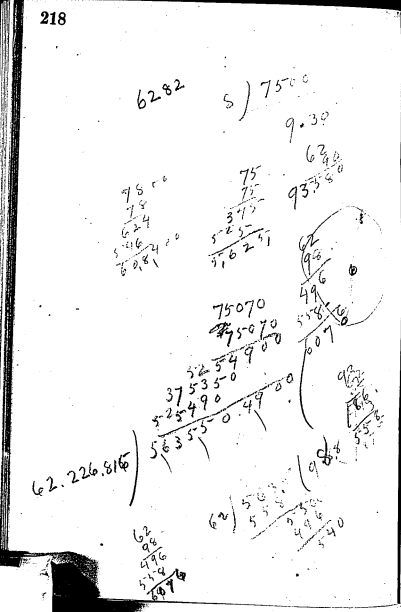
10 times greater in [illegible]

64 | 5.625 (87.

512

1.00





Datum 9.5 families

99 times workers

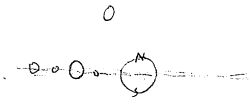
90.56 larger in bucks

9.5 greater diameter

9.5 greater distance around the 365

29.4 times longer going around

3 times longer going equal distance as the earth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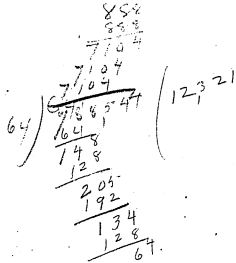
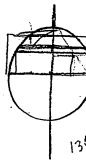
S





Dee p257

Mercury

1/4 diameter

4 less length of orbit

4.1 less time going around

6.54 less GMR

$2\frac{1}{2}$ times less circumference.

Lines of force 4 times stronger

Bulk Earth 61,346 000

.3 | 2)93 | 46.6 | 139.

4070 / 7596 / 1.94
4070
3826
3663
163

4070
4070

'46-
8

25 49
1628 0

1000
3300

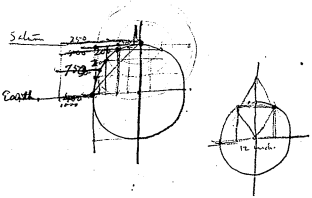
4000

1963 / 3.9

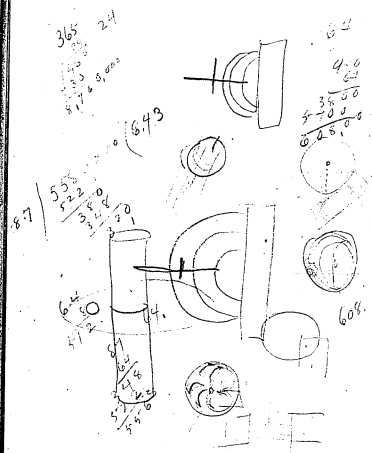
15000
3300

3300 | 196 | 61346000 / 49169700 / 12176300 / 11763900

Mars. 3.7 the bulk
1.94 the diameter
2.25 Less than [illegible]
1.52 longer orbit
1.8 times [illegible]



4. 36



compare Mercury
Moon travels Earth on axis 64 times less than around orbit.

Saturn

Lof F 99 times weaker
90.56 larger in bulk
9.5 greater dia
9.5 greater distance around than orbit.

29.4 longer going around than earth over a given or same distance.

Mercury

Luc F 4 times stronger.
1/4 the distance
1/4 the length of orbit
4.1 times less time going around than
2.5 less diameter
6.54 less bulk

Mars Lof F 2.25 weaker
1.52 the distance
1.94 the diameter
1.62 longer orbit
1.85 times longer going around
3.7 the bulk

Uranus

84 times as large in volume
19 times greater in mass
21.036 times greater in surface
4.54 times greater in diameter
44

19
44-0
95-0
76
851.50

449
19
4041
449
8531

93
19
837
93
1767.00

447
19
4023
447
8493.

Earth dia.

62,346 000

1.783
2
3.566.000 000
3
10.698.000.000

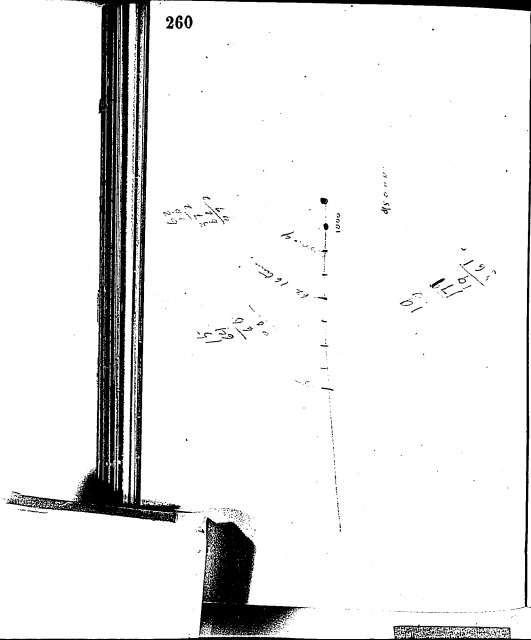
550.000 / 19

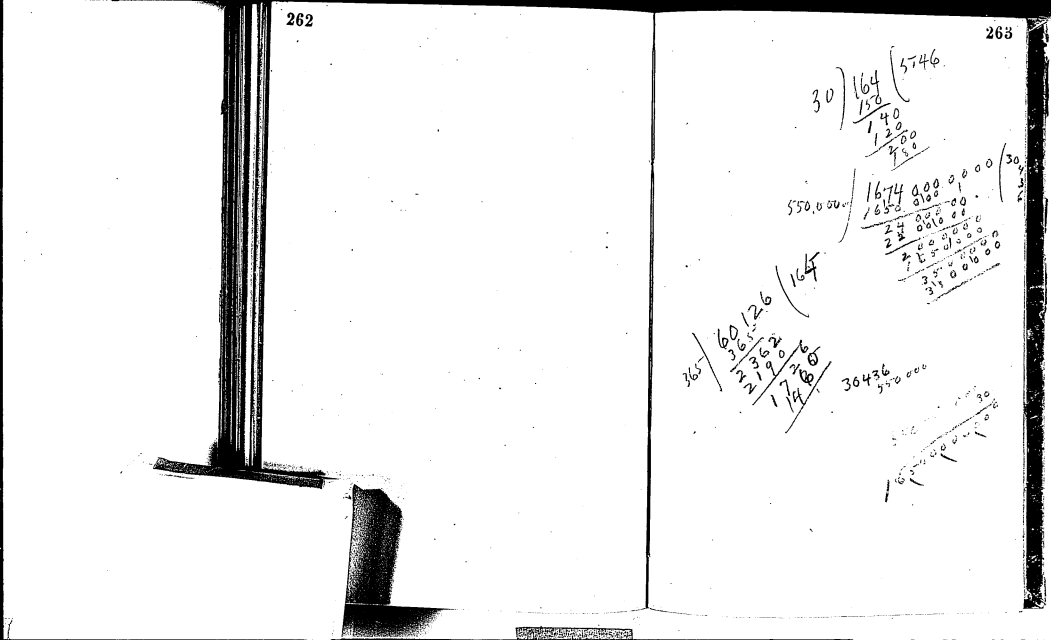
19
55-0
38
170
152
18

365 / 30686. / 84
2920
1486
1460
26

84

306



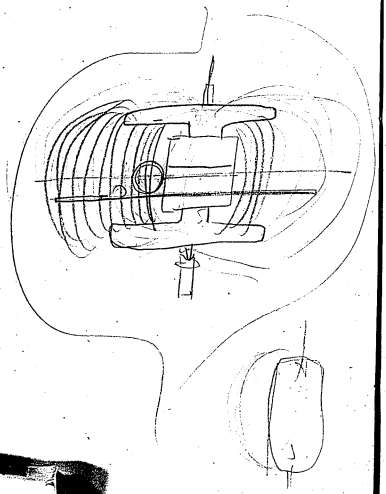


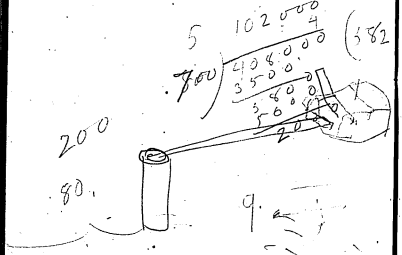
~~Scrapbook~~

disappearance
successful politicianly
drawing Significant-
information congregational
recently multitude
interesting
brooklyn
~~Hotel visitors~~
Authorities
received
requesting
washington
decided
Saturday
stamped
including
portraits

what time does train
supper
You are like e t
the
Room for it
How far is from ne-
York to Liverpool
Did you go to Europe
on the Arabia
Did you visit Rome
Would you like to go
to ~~Cuba~~ Japan
Did you ever look through
a telescope

from new York ~~to Edison~~
~~to~~ to Edison.
For Mr Myers—
Deutsche Edison
Gesellschaft Berlin
Ask for me to get you
to arbitrate between
them and Siemens
and Halske in dispute
about arc light. I think
you may accept signed Bergmann.

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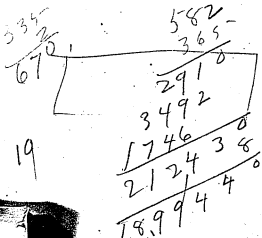
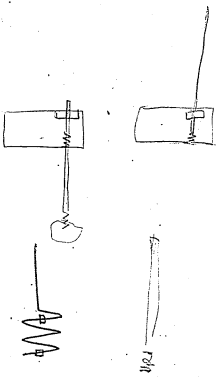
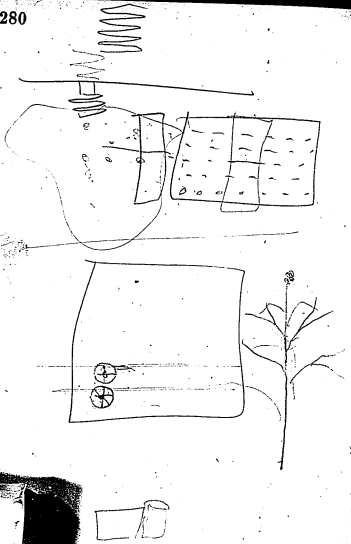
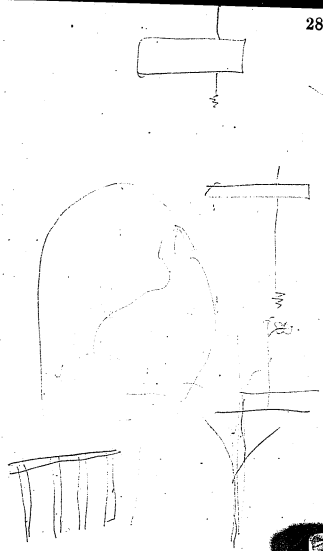
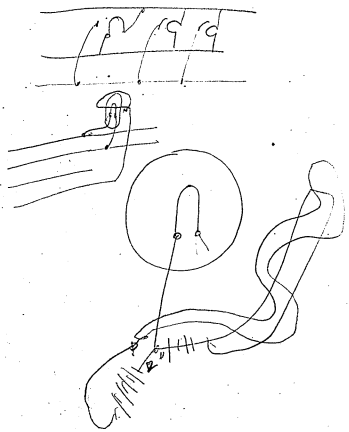
700
582
200
80
9

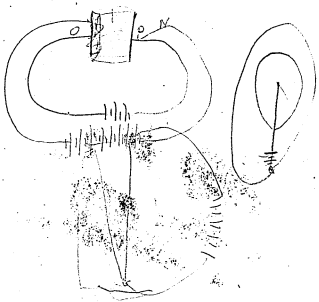

582
365
2910
3492
17460
212436
89944
19







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NP
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A